# Department of Property&Procurement

Government of the United States Virgin Islands

3274 Estate Richmond, Christiansted, U. S. Virgin Islands 00820

8201 Sub Base, 3rd floor, St. Thomas, U. S. Virgin Islands 00802

ST. CROIX MAIN OFFICE: 340.773.1561 | ST. THOMAS MAIN OFFICE: 340.774.0828

ST. CROIX FAX: 340.773.0986 | ST. THOMAS FAX: 340.777.9587

HTTP://DPP.VI.GOV


May 4, 2016

**AMENDMENT #1 IFB005DPWT16 (C)** Qualified contractors to furnish all labor, tools, equipment, machinery and supply for the Route 33 and 304n Roadway & Pedestrian Improvements, Project #VI-9999 (131)

INSERT: **Questions and Answers**

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED

BIDDERS MUST ACKNOWLEDGE RECEIPT OF THIS AMENDMENT WITH THEIR BID PROPOSAL

# Addendum No. 1

## Answers to Pre-Bid Questions

1. Please provide specifications on the signal controller to be used in the project. i.e. size 336 or 332 ?

Answer: The specifications for the signal controller are included in the Construction plans on Sheet C13 "Traffic Signal Plan" in No. 5 of the Construction Notes. Additional specifications are included in Addendum No. 1

2. Please provide details and specifications on Line Item 6306-0000 Adaptive Control System?

Answer: Addendum No. 1, includes additional specifications for the Adaptive Control System

3. Is there a required wind loading for the signal poles and arms?

Answer: Yes. 150 mph. Addendum No. 1, includes additional specifications for the installation of signal poles and mast arms.

4. Will signal pole foundation designs be provided by you or will the contractor be responsible for design?

Answer: Addendum No. 1, includes additional specifications for the installation of signal poles and foundations. The contractor is required to provide a design to be approved by the Project Engineer.

5. Has PWD already obtained the Construction General Permit from the EPA as mentioned on Drawing No. C2?

Answer: The Department of Public Works will obtain a Building Permit from the Department of Planning & Natural Resources. No EPA permit is required for this project.

6. Is a SWPPP required, and if so, will PWD obtain this?

Answer: A SWPPP is not required for this project.

7. On Drawing C4 and the Bid Quantity Sheet, it indicates work along Route 304 that has already been constructed in a previous construction project. Could you please revise the Bid Quantity Sheets to reflect this?

Answer: Addendum includes a revised Bid Schedule. An updated Schedule of Quantities construction plan sheet will be provided to the successful bidder.

8. On Drawing No. C4, the following works are required to be done, but there are no Pay items on the Bid Quantity Sheet, could you please revise the Bid Quantity Sheet to reflect these?

(a) Relocate Parking Bumpers.

Answer: This work is "as necessary" as noted in the construction plans and is incidental to the installation of new concrete sidewalk.

(b) Remove & Dispose of Hedge.

Answer: Addendum No. 1 includes a revised Bid Schedule with a lump sum item for this work.

(c) Relocate Utility Poles.

Answer: Addendum No. 1 includes a revised Bid Schedule with a new item to relocate (2) utility poles.

(d) Relocate Light Pole.

Answer: Addendum No. 1 includes a revised Bid Schedule which includes a new item to relocate (1) light pole.

(e) Extend Existing Raised Median.

Answer: Addendum No. 1 includes a revised Bid Schedule which includes a new item to extend the existing median. (18 square yards)

(f) Construct Concrete Driveways.

Answer: This item is included on the Schedule of Quantities plan sheet but was omitted from the Bid Schedule. It will be included in the revised Bid Schedule.

(g) Loam and Seeding.

Answer: Addendum No. 1 includes a revised Bid Schedule which includes a new item for loam and seeding.

(h) Relocate Signs

Answer: A new item has been added in the revised Bid Schedule in Addendum No. 1 to Remove & Relocate 5 Signs.

(i) Remove Bollards

Answer: A new item has been added in the revised Bid Schedule in Addendum No. 1 to Remove 8 Bollards.

(j) Apply New Parking Stall Markings.

Answer: A new item has been added in the revised Bid Schedule in Addendum No. 1 to Apply Parking Stall Markings.

9. Can you please clarify exactly where the 1,960 cubic yards of Roadway Excavation is to be carried out?

Answer: See Typical Section on Plan Sheet C5. The roadway is required to be excavated to accommodate the installation of 16 inches of base material and 4 inches of asphalt.

10. Can you confirm that work is to be carried out beyond Temporary Construction Easement?

Answer: Yes. The parking lot paving work is outside the Temporary Construction Easement. The property is owned by the Government of the Virgin Islands.

**Statement:**

1. The reconstruction of the 4 x 6 Junction Box and all work associated with this item as shown on Plan sheet C4 have been eliminated from this project. This work is already completed.

2. All references in the plans and specifications to 6" Crushed Gravel Base shall be replaced with 6" Aggregate Base, Grading C or D.

3. All references in the plans and specifications to 10" Crushed Gravel Base shall be replaced with 10" Aggregate Base, Grading A.

4. Ignore all reference to concrete stamping on sidewalks.

5. All crosswalks shall be 12" wide and spaced at 24".

## Section 636.—SIGNAL, LIGHTING, AND ELECTRICAL SYSTEMS

636.01. Add the following:

This work includes designing traffic signal system and lighting system.

636.02. Add the following:

| | |
|---|---|
| Structural steel | 717.01 |

Furnish material conforming to the 2015 edition of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction Book, found at http://www.dot.state.fl.us/programmanagement/Implemented/SpecBooks/default.shtm.

Furnish video detection system conforming to the Supplemental Specification for Video Detection System.

636.04. Delete the third paragraph and substitute the following:

The locations of the traffic system and lighting system shown in the plans are approximate. Establish the exact locations and submit to the Project Engineer for approval.

636.04. Add the following:

Furnish 35-foot high round tapered aluminum pole with a 12-foot single elliptical truss arm, manufactured by Valmont Industries, Inc., 28800 Ida Street, PO Box 358, Valley, Nebraska 68064.

Make the necessary arrangements with the serving utility companies to complete the service connections.

Coordinate the placement of the electric meters with the Project Engineer and the Virgin Islands Water and Power Authority.

Prior to trenching or boring operations, locate utilities in accordance with Section 645.

636.05. Add the following:

Install conduits a minimum of 3 feet below finished grade. Replace pavement structure removed to install conduit in kind.

636.06. Add the following:

Perform the design of the traffic signal system and lighting system by or under the supervision of a Professional Engineer licensed in the State of Florida or in the United States Virgin Islands.

Submit preliminary drawings of the proposed traffic signal system and lighting system to the Project Engineer for pre-approval of shape, member sizes, and clearances. Design traffic signal and lighting structures in accordance with the current edition of the "AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals". Use a design wind speed of 150 miles per hour. Submit the final traffic signal and lighting systems design package to the Project Engineer for approval according to Subsection 104.03.

Provide galvanized steel traffic signal pole and mast arm, manufactured by Valmont Industries, Inc., 28800 Ida Street, PO Box 358, Valley, Nebraska 68064.

Furnish traffic controller assembly consisting of a traffic controller, controller cabinet, and traffic controller accessories that meet or exceed the operational characteristics of the existing controller assembly.

Furnish 12-inch diameter vehicular signal heads with LED displays. Install louvered back plates on all signal heads and equip each signal indication with a tunnel visor.

Mount signal heads in accordance with the MUTCD. Use rigid mounts for signal heads.

636.08. Add the following:

Notify the Project Engineer at least 72 hours in advance of commencing the demonstration tests of the traffic signal system, in order that adequate precautions may be taken with respect to traffic on the street system. During this testing period, ensure the safe movement of vehicles where traffic is being maintained through the project and new and existing systems are not in operation at the same time.

# SPECIAL SPECIFICATION
## Traffic Adaptive Control System

1. **Description.** Furnish all labor, equipment and material to install an Adaptive Control System designed for transportation and traffic applications. The system must include an adaptive control system closed loop master field processor, upgrade existing traffic signal controllers, installation of additional detectors (if required), adaptive control system software, integration and training of the adaptive control system.

2. **Materials.** Provide new materials that meet the requirements of the plans and this specification.

3. **General.**
   - **A.** The adaptive control system software is designed to adapt the splits and offsets of signal control patterns/plans in a "closed-loop" master-based traffic control system. Changes to cycle time are handled on a time-of-day schedule like traditional traffic control systems. At each optimization step, which occurs about every 10 minutes, the system changes the splits and offsets a small amount (2-5 seconds) to accommodate changes in traffic flows.
   - **B.** The adaptive control system performs its optimizations by polling each local controller for detection and phase status data once per minute. This allows the adaptive control system management computer system to manage local controllers, depending upon communications rates. A minimum of 115Kbps is required to run local controllers.
   - **C.** The adaptive control system must support both serial and Internet Protocol (IP) communications with controllers using any communications media, i.e. fiber, wireless, hard wire. It must be capable of utilizing both serial and IP communication in one adaptive control system.
   - **D.** The adaptive control system must be configurable through a web-based user interface from a laptop computer connected to the adaptive control system field processor. The configuration data must be uploaded directly from the local controllers with no additional user data entry, allowing the user to configure links, ring sequences and detectors so the system can begin processing the data for traffic adaptive control.
   - **E.** As the adaptive control system is running, web pages must be updated each cycle to provide the status of each intersection performance and the changes that the adaptive control system makes to the splits and offsets. The performance measures must then be archived to a data store (up to a month of data must be stored on the field processor in compressed files) for future analysis and retrieval.

4. **Functional Requirements.** The principal adaptive control system must consist of:
   - **A.** An adaptive control system central hardened PC in a field cabinet or a Standard PC in an office environment if Ethernet is available to the local controllers.
   - **B.** Field hardware controllers
   - **C.** Central Communications Equipment (i.e. Server Hardware for the System)
   - **D.** Remote workstations with Internet access to the adaptive control system central.
   - **E.** Field communications
   - **F.** The central office must support the distributed client/server architecture via a local area network (LAN).
   - **G.** NTCIP communications protocols must be used for all interfaces between controllers and central and between central and other external systems.

5. **Technical Requirements.**
   - **A.** The system must be provided with an environmentally hardened PC processor for field deployment with adaptive control system software installed. The PC, as a minimum, must have 3.0 GHz Intel i5(or equivalent) processor, 16GB RAM, Windows 7 Professional, 500 GB HD, USB port, Ethernet port and a Serial port. The system server must run on Windows Server 2003 or later.
   - **B.** The system client applications(s) must be network-deployable.
   - **C.** The system must provide a browser-based client application, Microsoft Internet Explorer 9 or higher.
   - **D.** The system must be provided with 115Kbps or faster hardened multi-drop serial modems or IP network communications.
   - **E.** There must be an IP connection to the field master cabinet location for viewing status and configuration web pages on the adaptive control system processor.
   - **F.** Provide traffic detection as required on the plans.
   - **G.** Provide IP addressable modem or other IP communication media for upload/download of controller databases, remote web-page viewing for configuration and status and for remote management and support.
   - **H.** The system must provide time synchronization between the server and field devices using GPS, WWV or NTP.
   - **I.** Contractor will provide a new signal controller assembly that meets the requirements of the details shown on the plans. Provide controller assemblies from manufactures prequalified by the Department. The Division of Transportation maintains a list of prequalified controller assembly manufacturers.
   - **J.** Currently the Controllers located in this district are McCain running McCain 233 RV2 Software. To run ASC, for example, software would have to be McCain 233 MC1 or McCain 2033RV or McCain Omni Ex)

6. **Operational Requirements**

A. There must be 7 operational modes for the adaptive control system; Configuration mode, Synchronization mode, Validation mode, Monitoring mode, Analysis mode, Control mode and Shutdown mode.
B. The adaptive control system must be configured so the timing plans will adjust to traffic fluctuations without the need for operator over-ride.
C. The adaptive control system must have the capability to be manually turned off and on.
D. The adaptive control system must operate on a time-of-day schedule or through manual commands.
E. The adaptive control system must provide real time adaptive control information for cycle times, offsets, split allocation, phase length, demand dependent phase activation and detector fault warnings.
F. The adaptive control system must provide for the capability of pre-emption of the controller for emergency vehicles and signal-timing optimization must automatically recover after pre-emption.
G. The adaptive control system must recover automatically after a power outage, power surge, or communications failure.
H. The system must use existing traffic detectors, where available, for data collection and performance tuning.
I. The adaptive control system must provide status displays for monitoring the traffic adaptive operation for split tuning, offset tuning, pattern history and phase timing history.
J. The adaptive control system must maintain once per minute communications from the field processor and local controllers.

7. **Construction.** The contractor must upgrade existing controllers, provide and install the adaptive control system field processor, establish communications with local intersection controllers, provide communications with system workstations, and configure all operational parameters to complete an operational adaptive control system.

8. **Training.**
A. Upon successful operation of the adaptive control system the contractor must provide two days training. The training must consist of classroom and hands on field training for up to 6 maintenance personnel. Training must include field controller and firmware training, detector system operation and adaptive control system master controller operation.
B. In addition, three (3) manuals supporting the system must be included. As a minimum, these manuals must consist of adaptive control system operations manual, controller hardware operations guide, hardware and software manuals from any third party system provider, i.e. Windows, modem manuals, computer manuals, etc.

9. **Warranty.** The contractor must provide a warranty statement that provides a minimum of three (3) years technical support for the adaptive control system. The support must include

phone, e-mail and hyper-link connections from the manufacturer to the system. In addition, the manufacturer must provide a designated representative for additional support.

10. **Measurement.** This Item will be measured as each signalized intersection controlled by a single traffic signal controller.

11. **Payment.** The work performed and materials furnished in accordance with this item and measured as provided under "Measurement" will be paid for at the unit price bid for "Traffic Adaptive Control System". This price is full compensation for furnishing, installing, and testing the completed installation of the adaptive control system, (1) one license for the master signalized intersection and additional licenses as called out in the general notes or plans for future intersections controlled by the master intersection. The Department will pay for electrical energy consumed by the traffic signal.

# SPECIFICATIONS

## NEMA P – TS2/Type 1 Traffic Signal Controller Cabinet Specifications

1. INTRODUCTION

This specification sets forth the minimum requirements for a Type P NEMA TS 2 Type 1 traffic-actuated controller cabinet assembly with eight vehicle phase, four pedestrian phase, and two overlaps and fully operational with all components and plug-ins including: malfunction management unit (MMU), bus interface unit (BIU), cabinet power supply, load switches, flash transfer relays, flashers and Iteris video detection system. The controller cabinet assembly shall meet all applicable sections of the NEMA Standards Publication TS 2-2003.

2. CABINET

The controller cabinet shall be a new fully-wired Type P aluminum cabinet, TS 2 Type 1. The interior of the cabinet shall be painted powder coat white. The exterior of the cabinet shall be treated with an anti-graffiti coating. The anti-graffiti coating shall be a clear material and shall not distort or change the exterior painted color of the cabinet.

The cabinet shall be wired to provide both a 55-pin "A" connector and a 10-pin "A" connector for interface to the controller unit. Either one will then be used to interface with the controller unit providing flexibility on the controller unit type (NEMA TS2-Type 1 or a NEMA TS2-Type 2 controller unit) to be used in the cabinet. Harness connectors shall have at least two (2) feet of slack for easy connection to the traffic signal controller.

Test switches shall be provided to place test calls for each of the eight vehicle phases, four pedestrian phases, and the four emergency vehicle preemption channels on the cabinet door. On the inside of the traffic signal cabinet door, in addition to the specified vehicle/pedestrian/preemption toggle switches, toggle switches for the Auto/Flash, Controller On/Off, and Auto Stop Time/Manual Stop Time shall also be provided and protected against accident contact and switching using a toggle switch cover.

The cabinet shall also be provided with the following:

(a.) Roll out stainless steel document drawer mounted under the second/middle shelf. This drawer shall have a hinged top cover, and it shall be of sufficient size and strength to serve as a working surface and to hold a complete set of cabinet wiring drawings and equipment programming manuals for all modules applicable to the cabinet. When the cover is closed, the drawer shall double as a resting place for documents or a laptop computer.

(b.) Roll out minimum size 15-Inch LCD Color Display Unit mounted under the second/middle shelf. The LCD Display Unit shall be capable of accepting BNC and RCA video inputs.

(c.) Thermostatically controlled ventilation fan system.

(d.) LED lighting fixture mounted on the inside top of the cabinet near the front edge that is activated through a door switch that automatically turns on the LED lighting fixture when the door is opened and turns off the LED lighting fixture when the door is closed.

(e.) Exterior police panel and technician test panel with the specified test switches discussed in this section

(f.) The cabinet shall include a 120 VAC quad power receptacle on the right side of the cabinet adjacent to the top shelf of the cabinet for use by ancillary cabinet equipment.

(g.) The cabinet shall include a 120 VAC quad power receptacle with surge suppression mounted on the left side of the cabinet adjacent to the top shelf of the cabinet for use by ancillary cabinet equipment.

(h.) The cabinet shall include an Emergency Power Generator plug on the right side of the cabinet located at the top of the cabinet with a low-profile exterior access panel.

3. CABINET RISER

A 12-Inch riser shall be provided with each traffic signal cabinet. The rise shall be painted internally and externally to match the traffic signal cabinet assembly including painted powder coated white for the interior. The riser shall be manufactured of the same aluminum and material thickness as the traffic signal cabinet assembly and manufactured so that anchor mounting align with the anchor mounting supports of the traffic signal cabinet.

4. CABINET DIMENSIONS

The NEMA P Traffic Signal Cabinet dimensions, not including the 12-Inch Cabinet Riser, shall comply with the following minimum requirements:

- Height: 39-Inches
- Width: 24-Inches
- Depth: 26-Inches
- Cabinet: 46-Inches H x 24-Inches W

Spacing

- Anchor Bolt: ¾ - Inch x 16-Inches

Size

The door of the traffic signal cabinet shall be supported using a "Piano Hinge" style mount that runs continuously along the edge of the door onto the traffic signal cabinet structure.

5. EMERGENCY VEHICLE PREEMPTION RACK

The cabinet shall be wired to support the installation of emergency vehicle preemption (EVP) systems and include one 4-Channel Optical Phase Selector Card that supports GPS technology. The cabinet shall be wired to support four optical-based EVP channels through the provision of rack positions for insertion of either two two-channel EVP card modules or one four-channel EVP card module but one 4-Channel card shall be supplied with the cabinet. The rack positions may be either a separate two-position rack located next to the detector rack or incorporated as two individual positions within the detector rack. EVP wiring within the cabinet shall allow the user to select any of the six preemption channels within TS 2 to be used.

6. MALFUNCTION MONITORING UNIT (MMU)

The cabinet shall be furnished with an EDI brand 16LEip MMU for malfunction monitoring of the traffic signal cabinet as required by NEMA Standard TS2-2003 (R2008) including NEMA Amendment #4-2012 for Flashing Yellow Arrow (MMU2) operations. The MMU shall include an LCD display for easy user-interface for programming and monitoring and provide Ethernet connectivity for remote monitoring.

7. BUS INTERFACE UNIT (BIU)

The cabinet shall be furnished with BIUs that meet all applicable sections of the NEMA TS 2 specification. The BIUs shall be rack-mountable and solid-state.

8. CABINET POWER SUPPLY

The cabinet power supply shall meet all applicable sections of the NEMA TS 2 specification. One power supply unit shall be provided.

9. LOAD SWITCH

The load switch shall be solid state and meet all applicable sections of the NEMA TS 2 specification. The load switch shall have indicator lights that show the output side of the relay for the red, yellow and green indications.

10. FLASHER

The flasher shall be solid state and meet all applicable sections of the NEMA TS 2 specification. It shall have indicator lights that show the output side of the relay.

11. FLASH TRANSFER RELAYS

The flash transfer relay shall be mechanical with indicator status lights and meet all applicable sections of the NEMA TS 2 specification.

## 12. TRAFFIC SIGNAL CONTROLLER AND COMMUNICATIONS

See Adaptive Signal Control Specification

## 13. DOCUMENTATION

All cabinet wiring shall be incorporated into one schematic drawing. Each cabinet shall be provided with three schematic drawings. Drawings shall indicate the intersection name and phasing.

Operational/repair manuals for each component and plug-in shall be provided with each cabinet.

## 14. TESTING

Each traffic signal cabinet assembly shall be tested and certified by the manufacturer. The controller cabinet shall be tested as a complete unit (including all plug-ins provided) under signal load for a minimum of 48 hours. For testing by the manufacturer a manufacturer's controller or test box may be used but the serial numbers for each unit noted on the test certification for future reference. Standard vehicle detectors may be used for the cabinet testing.

For cabinet assemblies provided through a secondary vendor, no modification of existing traffic signal cabinets within the inventory of the vendor to satisfy these specifications shall be allowed. Cabinet assemblies must be brand new from the manufacturer built to comply with these specifications including auxiliary equipment. The manufacturer's certifications shall note compliance with these specifications including the installation of auxiliary equipment.

## 15. WARRANTY

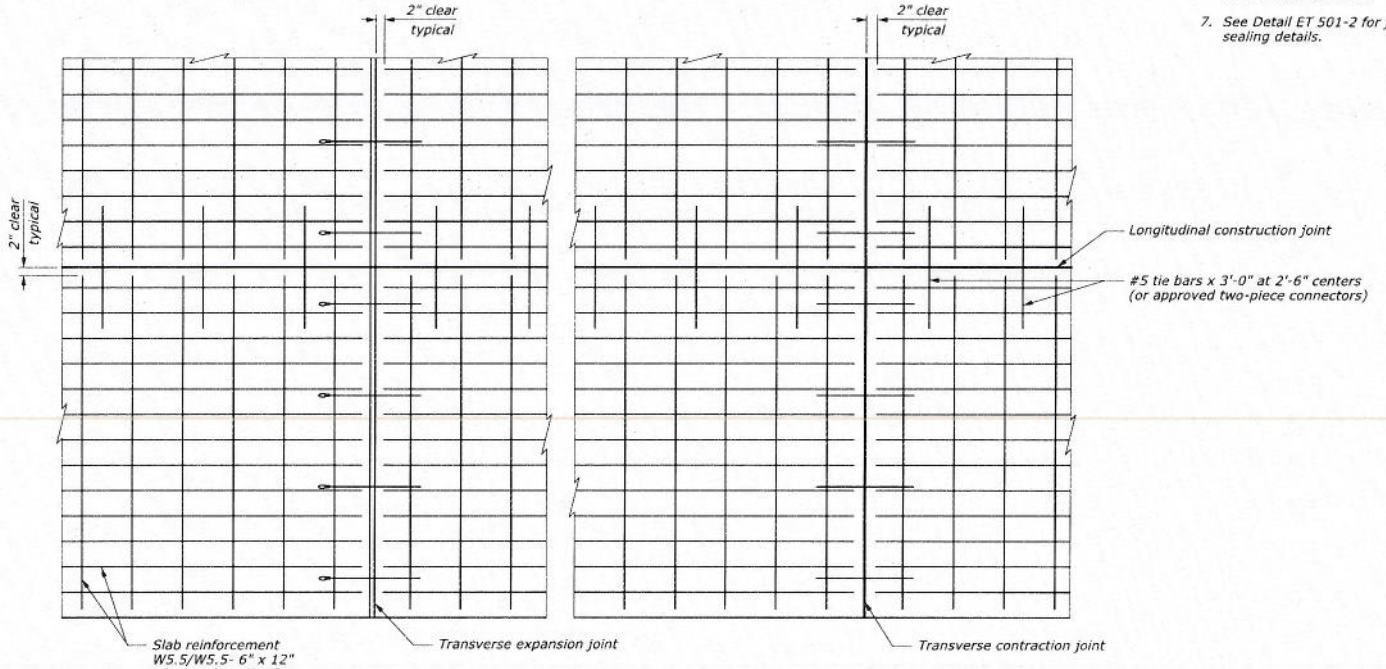
The cabinet assembly including all the electronic components shall be warranted by the manufacturer against mechanical and electrical defects for a minimum period of 2 years. The manufacturer's warranty shall be supplied in writing with the cabinet.

Any defects in design, workmanship or material shall be corrected by the supplier during the warranty period at no cost to the Government of the Virgin Islands. All cost of labor, parts and transportation to and from the vendor shall be borne by the vendor for the duration of the warranty period. The vendor shall provide all revisions to any equipment furnished under these specifications, at no cost to the Government of the Virgin Islands.

| STATE | PROJECT | SHEET NUMBER |
|---|---|---|
| | | |

## NOTE:

1. Lap longitudinal reinforcement not less than 13-inches.
2. Lap transverse reinforcement not less than 9-inches.
3. Eliminate all longitudinal and transverse reinforcing steel, wire, or bars where plain portland cement concrete pavement or base is required.
4. Provide the same type of dowel assemblies and tie bars for joints in plain portland cement concrete pavement as shown for joints in reinforced pavement.
5. Space transverse expansion joints at a minimum of 280 feet.
6. Space transverse contraction joints for reinforced concrete pavement at not more than 40 foot intervals and for plain concrete pavement or base at not more than 20 foot intervals.
7. See Detail ET 501-2 for joint details and joint sealing details.




**PLAN**

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION

U.S. CUSTOMARY DETAIL

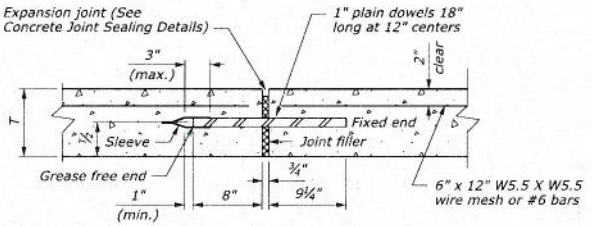
# PORTLAND CEMENT CONCRETE PAVEMENT

DETAIL APPROVED FOR USE
APPROVED: MAY 2011
REVISED: SEPTEMBER, 2014

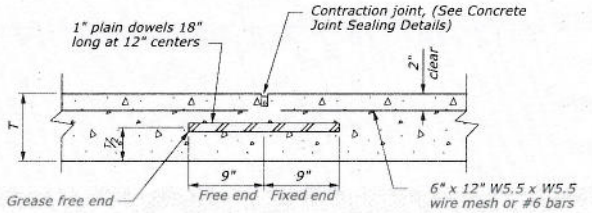
DETAIL
ET 501-1

02-Dec-2014 08:17 AM H:\Team Folders\HDUGVFP 14 Detail Review\ALL FP14_DGN\stS0101 EFL YEMP.dgn

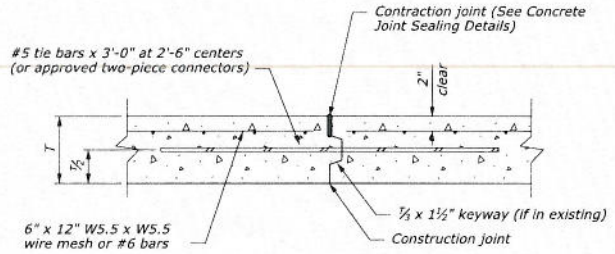
| STATE | PROJECT | SHEET NUMBER |
|---|---|---|
| | | |




TRANSVERSE EXPANSION JOINT




TRANSVERSE CONTRACTION JOINT

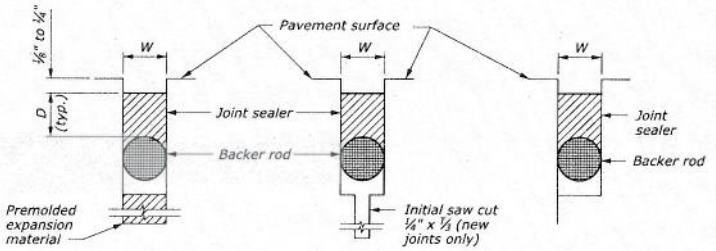



LONGITUDINAL CONTRACTION JOINT

## REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT JOINT DETAILS

### NOTES:

1. Anchor tie bars and dowels into existing concrete pavement with epoxy resin adhesive.
2. Space expansion joints a minimum of 280 feet.
3. W= ⅜" for longitudinal contraction joints and ¾" for transverse expansion and contraction joints field conditions require larger openings.
4. Maintain joint sealant shape factor of 1:1 except that when silicone sealant is used, the width to depth (W:D) shape factor is 1:2.




## REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT JOINT SEALING DETAILS

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION

U.S. CUSTOMARY DETAIL

**PORTLAND CEMENT CONCRETE PAVEMENT JOINTS**

| DETAIL APPROVED FOR USE | DETAIL |
|---|---|
| APPROVED: MAY 2011<br>REVISED: SEPTEMBER 2014 | ET 501-2 |

02-Dec-2014 08:18 AM H:\Team Folders\HDUGFP_14_Detail_Review\ALL_FP14_DGN\et50102_EPL_TEMP.dgn

Bid Schedule

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY AND UNIT | UNIT PRICE (Figs.) | TOTAL PRICE (Figs.) |
|---|---|---|---|---|
| 15101-0000 | Mobilization | 1 LS | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 15401-0000 | Contractor Testing | 1 LS | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 15701-0000 | Soil Erosion Control | 1 LS | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 20221-1000 | Remove & Dispose of Hedge | 1 LS | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 20301-0000 | Demolish, Remove and Dispose of Existing Pavement | 2450 SQ YD | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 20301-0100 | Removal of Bollard | 8 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |

Bid Schedule

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY AND UNIT | UNIT PRICE (Figs.) | TOTAL PRICE (Figs.) |
|---|---|---|---|---|
| 20301-0200 | Remove & Dispose of Curb | 1665 LN FT | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 20301-0900 | Remove and Reset Hydrant | 2 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 20301-2400 | Removal of Sign | 1 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 20301-2800 | Remove Signal Poles, Foundations, Mast Arms and Heads | 2 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 20301-3200 | Remove and Dispose of Sidewalk | 480 SQ YD | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 20302-1200 | Removal of Guardrail | 25 LN FT | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |

Bid Schedule

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY AND UNIT | UNIT PRICE (Figs.) | TOTAL PRICE (Figs.) |
|---|---|---|---|---|
| 20401-0000 | General Excavation | 1960 CU YD | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 21201-0000 | Parking Lot Grading | 1 LS | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 30102-0200 | 6" Aggregate Base, Grade C or D | 620 CU YD | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 30102-0400 | 10" Aggregate Base, Grade A | 830 CU YD | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 40201-0000 | 2" Bit Pavement (Base) | 345 TONS | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 40201-1000 | 2" Bit Pavement (Finish) | 1100 TONS | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |

## Bid Schedule

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY AND UNIT | UNIT PRICE (Figs.) | TOTAL PRICE (Figs.) |
|---|---|---|---|---|
| 40201-2000 | 1" Bit Pavement (Parking Lot Overlay) | 85 TONS | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 41201-0000 | Tack Coat | 900 GAL | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 41301-0000 | 2" Milling (Full Width) | 6110 SQ YD | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 41803-0000 | Sawcut Existing Pavement | 800 LN FT | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 60401-0000 | Adjust Manhole Rim Elevation | 5 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 60401-1000 | Curb Inlets | 2 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |

Bid Schedule

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY AND UNIT | UNIT PRICE (Figs.) | TOTAL PRICE (Figs.) |
|---|---|---|---|---|
| 60401-2000 | Adjust and Fortify Utility Vault Cover | 1 EA | $ _____ | $ _____ |
| | Unit Price (Words)_____ | | | Dollars _____ Cents |
| 60905-0000 | Concrete Curb (Type D) | 280 LN FT | $ _____ | $ _____ |
| | Unit Price (Words)_____ | | | Dollars _____ Cents |
| 60905-1000 | Concrete Curb & Gutter (Type F) | 1525 LN FT | $ _____ | $ _____ |
| | Unit Price (Words)_____ | | | Dollars _____ Cents |
| 60905-2000 | Valley Gutter | 255 LN FT | $ _____ | $ _____ |
| | Unit Price (Words)_____ | | | Dollars _____ Cents |
| 61101-0000 | Adjust Water Valve Cover Elevation | 3 EA | $ _____ | $ _____ |
| | Unit Price (Words)_____ | | | Dollars _____ Cents |
| 61501-0100 | 4" Thick Concrete Sidewalk (6" @ Depressed Section along Route 304) | 830 SQ YD | $ _____ | $ _____ |
| | Unit Price (Words)_____ | | | Dollars _____ Cents |

Bid Schedule

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY AND UNIT | UNIT PRICE (Figs.) | TOTAL PRICE (Figs.) |
|---|---|---|---|---|
| 61501-0200 | Raised Island (4" - Concrete) | 1260 SQ FT | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 61501-1000 | 6-inch Concrete Drivepads | 60 SQ YD | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 61503-1000 | Extend Existing Raised Median | 18 SQ YD | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 61504-0100 | Handicap Sidewalk Ramps/Tip Downs (Tactile Warning Pads) | 17 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |

Bid Schedule

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY AND UNIT | UNIT PRICE (Figs.) | TOTAL PRICE (Figs.) |
|---|---|---|---|---|
| 61904-0000 | Install Bollards | 4 EA | $ _____ | $ _____ |
| | Unit Price (Words) _____ | | Dollars _____ | Cents |
| 62510-1000 | Loam & Seed | 1 LS | $ _____ | $ _____ |
| | Unit Price (Words) _____ | | Dollars _____ | Cents |
| 63305-0100 | R1-1, Stop Sign | 2 EA | $ _____ | $ _____ |
| | Unit Price (Words) _____ | | Dollars _____ | Cents |
| 63305-0200 | R1-2, Yield Sign | 1 EA | $ _____ | $ _____ |
| | Unit Price (Words) _____ | | Dollars _____ | Cents |
| 63305-0300 | R3-8a, Turn Only | 1 EA | $ _____ | $ _____ |
| | Unit Price (Words) _____ | | Dollars _____ | Cents |

Bid Schedule

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY AND UNIT | UNIT PRICE (Figs.) | TOTAL PRICE (Figs.) |
|---|---|---|---|---|
| 63305-0400 | R10-12, Right Turn Yield (For Traffic Signals) | 2 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 63305-0500 | M1-4, Route Sign | 2 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 63305-0600 | M2-1, Junction Sign | 2 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 63305-0700 | M6-3, Route Arrow | 1 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 63305-0800 | M6-4, Route Arrow | 1 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 63306-0000 | 4-Foot Delineator Posts | 12 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |

Bid Schedule

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY AND UNIT | UNIT PRICE (Figs.) | TOTAL PRICE (Figs.) |
|---|---|---|---|---|
| 63309-0000 | Apply Parking Stall Markings (Thermoplastic) | 1 LS | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 63316-1000 | Remove & Reset Sign | 5 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 63401-1000 | Retroreflective Pavement Marking (symbol/Word) | 32 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 63401-1500A | Pavement Markings, 4" (Double Yellow/White) 4,426' Yellow 356' White | 4782 LN FT | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 63401-1500B | Pavement Markings 12" (Medians) | 65 LN FT | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 63401-1500C | Pavement Markings 12" (Crosswalks) | 672 LN FT | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |

Bid Schedule

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY AND UNIT | UNIT PRICE (Figs.) | TOTAL PRICE (Figs.) |
|---|---|---|---|---|
| 63401-1500C | Pavement Markings 18" (Stop Bars) | 190 LN FT | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 63501-0000 | Maintenance of Traffic | 1 LS | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 63601-0000 | Signal Pole and Foundation | 2 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 63601-0100 | 28' Mast Arm | 1 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 63601-0200 | 30' Mast Arm | 1 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 63601-0300 | 44' Mast Arm | 1 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |

Bid Schedule

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY AND UNIT | UNIT PRICE (Figs.) | TOTAL PRICE (Figs.) |
|---|---|---|---|---|
| 63601-0400 | 46' Mast Arm | 1 EA | $ _____ | $ _____ |
| | Unit Price (Words)_____ | | | Dollars _____ Cents |
| 63601-0500 | Pedestrian Signal Pole & Foundation | 2 EA | $ _____ | $ _____ |
| | Unit Price (Words)_____ | | | Dollars _____ Cents |
| 63601-0600 | Pedestrian Signal Head, Push Button & Sign Assembly | 7 EA | $ _____ | $ _____ |
| | Unit Price (Words)_____ | | | Dollars _____ Cents |
| 63601-0700 | 3-Section LED Signal Head | 11 EA | $ _____ | $ _____ |
| | Unit Price (Words)_____ | | | Dollars _____ Cents |
| 63601-0800 | Traffic Signal Controller, Cabinet & Foundation | 1 EA | $ _____ | $ _____ |
| | Unit Price (Words)_____ | | | Dollars _____ Cents |

Bid Schedule

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY AND UNIT | UNIT PRICE (Figs.) | TOTAL PRICE (Figs.) |
|---|---|---|---|---|
| 63605-0000 | Traffic Signal Conduit | 375 LN FT | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 63605-1000 | Pull Box for Traffic Signal | 5 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 63606-0000 | Adaptive Signal Control System | 1 LS | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 63606-1000 | Systems Installation, Traffic w/Camera Detection | 1 LS | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 63640-0400 | Relocate Utility Pole | 2 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 63641-0700 | Relocate Light Pole | 1 EA | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |

Bid Schedule

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY AND UNIT | UNIT PRICE (Figs.) | TOTAL PRICE (Figs.) |
|---|---|---|---|---|
| **Add Alternates** | | | | |
| 40201-0100 | Reconstruct Intersection in Asphalt - 6 inch (4in Base Course, 2in Wearing Course) Includes Removal of Existing Pavement | 490 Tons | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |
| 50101-0000 | Reconstruct Intersection in 9-inch Concrete Pavement (Includes Removal of Existing Pavement) | 1450 SY | $ _____ | $_____ |
| | Unit Price (Words)_____ | | | Dollars _____Cents |

TOTAL AMOUNT OF BASE BID (Figs): $ _____

_____

(AMOUNT IN WORDS)

I hereby certify that this bid is made without prior understanding, agreement or connection with any corporation, firm or person submitting a bid for the same materials, submitting a bid for the same materials, supplies or equipment and is in all respects fair and without collusion or fraud. I hereby agree to abide by all terms and conditions of this bid and certify that I am authorized to sign this bid for the bidder.

_____ _____

Authorized Signature Title

_____ _____

Phone Date

(Seal – if Bid is by a Corporation)

Attest_____